



AGRICULTURAL DIVERSIFICATION INVESTMENT AREA

*(Approved September 21, 2001)
(Updated March 20, 2009)*

This document provides eligible investments and is considered to be minimum standards by which an investment area is to be implemented.

Counties shall place a dollar cap on the maximum cost-share per producer of up to \$7,500 for the 12-month period from the execution date of the legal agreement between the administrator and the Kentucky Agricultural Development Board.

Funded participants shall adhere to all local, state, and federal rules and regulations.

Questions concerning these guidelines should be directed to the Governor's Office of Agricultural Policy at (502) 564-4627. Application for funds must be directed through the local County Agricultural Development Council(s).

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I. Eligible Investment Areas

A. Commercial Vegetable, Mushroom, and Herb Production

Cost Share Items:

1. Seeds, seedlings, spores, cuttings, and vegetable transplants in conformance with UK recommendations. In consultation with CES may include test varieties as part of a demonstration
2. Transplanting or cultivation equipment (not self-propelled)
3. Soil, media for plant production
4. Containers for starting and selling herbs
5. Fertilizer and soil amendments in accordance with soil test recommendation, including foliar feed. Soil test must have been conducted within the previous twelve months
6. Plastic or plasticulture supplies and plastic laying equipment; materials, as allowed in the National List (205.600 of the USDA Organic Standards), for suppression of weed growth, soil temperature moderation, or soil moisture conservation in organic production
7. Water and irrigation supplies and equipment
8. Jars, boxes, labels, and packaging for transport and sales
9. Pesticide recommended for use in vegetable crops by UK; Includes organic and biological pest control for use by organic producers; As applicable, producer must hold a current Private Pesticide Applicator's card
10. Commercial spraying equipment and related protective gear. Producer must hold a current Private Pesticide Applicator's card
11. Cooling equipment
12. Third party GAP/GHP Audit and sorting, grading, washing, and sales-preparation equipment and facilities, in accordance with the Good Agricultural Practice (GAP) standards
13. Refrigerated and non-refrigerated equipment (excluding motorized vehicles) for transporting produce and finished product
14. Specialized harvesting equipment (not self-propelled)
15. Equipment (not self-propelled) essential to provide on-farm value-added processing
16. Computer hardware and software to assist in performance record keeping and financial management
17. One-half the cost of participation in the Kentucky Farm Business Management Program

18. One-half of the cost of membership in a producer owned marketing cooperative
19. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs.
20. On-farm direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structures or conversion of existing structures to be used for retail sale of product.

[Meeting rooms, exposition centers, educational facilities and construction or improvements to buildings serving primarily as residences are not eligible cost share items.]
 - b. Site preparation including on-site utility extensions and officially permitted on-site waste treatment facilities
 - c. Refrigerated and non-refrigerated equipment (not self-propelled) for storing product
 - d. Display equipment, including refrigerated equipment, to assist in selling of product

B. Commercial Fruit and Sweet Sorghum Production

Cost Share Items:

1. Seeds, cuttings, potted and rooted cuttings, and scion/rootstock combinations, in conformance with UK recommendations.

Reimbursement for grapevine cuttings potted and rooted cuttings, scion/rootstock combinations that are on the *Grapevine Cultivar Requirements List* (Appendix B), reviewed annually by the State Viticulturalist, are also eligible investment items.
2. Transplanting or cultivation equipment (not self-propelled)
3. Soil, media for plant production
4. Fertilizer and soil amendments in accordance with soil test recommendation, including foliar feed; Soil test must have been conducted within previous twelve months
5. Plastic or plasticulture supplies and plastic laying equipment; materials, as allowed in the National List (205.600 of the USDA Organic Standards), for suppression of weed growth, soil temperature moderation, or soil moisture conservation in organic production
6. Water and irrigation supplies and equipment
7. Trellis or other plant supporting materials
8. Jars, boxes, labels, and packaging for transport and sales
9. Pesticide recommended for use in fruit crops by UK; Includes organic and biological pest control for use by organic producers; As applicable, the producer must hold a current Private Pesticide Applicator's card
10. Commercial spraying equipment and protective gear. Producer must hold a current Private Pesticide Applicator's card.
11. Bird netting for protection of fruit crops
12. Specialized harvesting equipment (not self-propelled)
13. Cooling equipment
14. Third party GAP/GHP Audit and sorting, grading, washing, and sales-preparation equipment and facilities, in accordance with the Good Agricultural Practice (GAP) standards
15. Cider presses and other juice extracting equipment
16. Refrigerated and non-refrigerated equipment (excluding motorized vehicles) for transporting produce and finished product
17. Equipment (not self-propelled) essential to provide on-farm value-added processing

18. Computer hardware and software to assist in performance record keeping and financial management
19. One-half the cost of participation in the Kentucky Farm Business Management Program
20. One-half the cost of membership in a producer-owned marketing cooperative
21. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs
22. On-farm direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structures or conversion of existing structures to be used for retail sale of product.

[Meeting rooms, exposition centers, educational facilities and construction or improvements to buildings serving primarily as residences are not eligible cost share items.]
 - b. Site preparation including on-site utility extensions and officially permitted on-site waste treatment facilities
 - c. Refrigerated or non-refrigerated equipment (not self-propelled) for storing product
 - d. Display equipment, including refrigerated equipment, to assist in selling of product

C. Production of Commercial Ornamental Horticultural Products

Cost Share Items:

1. Seeds, seedlings and rootstock, in conformance with UK recommendations
2. Soil, media for plant production
3. Transplanting and harvesting equipment (not self-propelled)
4. Fertilizer and soil amendments in accordance with soil test recommendation; Soil test must have been conducted within the previous twelve months.
5. Plastic or plasticulture supplies and plastic laying equipment
6. Water and irrigation supplies and equipment
7. Containers for growing plants
8. Boxes, containers, labels, and packaging for transport and sales
9. Pesticide recommended for use in ornamental horticultural crops by UK. Includes organic and biological pest control for use by organic producers. As applicable, producer must hold a current Private Pesticide Applicator's card
10. Commercial spraying equipment and protective gear; Producer must hold a current Private Pesticide Applicator's card
11. Harvesting equipment, including mechanized tree spades
12. Cooling equipment
13. Refrigerated and non-refrigerated equipment (excluding motorized vehicles) for transporting product
14. Equipment essential to provide on-farm value-added processing
15. Computer hardware and software to assist in performance record keeping and financial management
16. One-half the cost of participation in the Kentucky Farm Business Management Program
17. One-half the cost of membership in a producer-owned marketing cooperative.
18. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs.
19. On-farm direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structures or conversion of existing structures to be used for retail sale of product.

[Meeting rooms, exposition centers, educational facilities and construction or improvements to buildings serving primarily as

residences are not eligible cost share items.]

- b. Site preparation including on-site utility extensions and officially permitted on-site waste treatment facilities
- c. Refrigerated or non-refrigerated equipment for storing product
- d. Display equipment, including refrigerated equipment, to assist in selling of product

D. Greenhouse Construction or Conversion for Horticultural Enterprises

Cost Share Items:

1. Cooling and heating systems (fans, vents, heaters, motors, shade cloth, cooling pads, etc.)
2. Automatic irrigation systems
3. Benches, tables, rails
4. Hydroponic growing systems and components
5. Commercial spraying equipment and protective gear; Producer must hold a current Private Pesticide Applicator's card
6. Equipment essential to provide on-farm value-added processing
7. Refrigerated or non-refrigerated equipment (excluding motorized vehicles) for transporting produce
8. Computer hardware and software to assist in performance record keeping and financial management
9. One-half the cost of participation in the Kentucky Farm Business Management Program
10. One-half the cost of membership in a producer-owned marketing cooperative
11. Greenhouse materials (plastic, glass, wood or metal)
12. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs
13. On-farm direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structures or conversion of existing structures to be used for retail sale of product.

[Meeting rooms, exposition centers, educational facilities and construction or improvements to buildings serving primarily as residences are not eligible cost share items.]
 - b. Site preparation including on-site utility extensions and officially permitted on-site waste treatment facilities
 - c. Refrigerated and non-refrigerated equipment for storing product
 - d. Display equipment, including refrigerated equipment, to assist in selling of product

E. Small Animal Production (Bees, Rabbits)

1. Honeybees

Cost Share Items:

1. New or used hives (used hives shall be inspected by State Apiarist prior to purchase), other wooden ware, foundation, specialty supers
2. New or used extractor, honey processing, bottling and storage equipment
3. Purchase of bees from an inspected source
4. Protective suits, veils, gloves, smoker, hive tool
5. Equipment essential to provide on-farm value-added processing
6. Jars, bottles, labels, boxes, signage for promoting/selling honey
7. Beeswax candle making supplies, including wax melter, molds, wicks
8. Approved medications
9. Non-motorized equipment essential for the transportation of beehives
10. Computer hardware and software to assist in performance record keeping and financial management
11. One-half the cost of participation in the Kentucky Farm Business Management Program
12. One-half the cost of membership in a producer-owned marketing cooperative.
13. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs.
14. On-farm direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structures or conversion of existing structures to be used for retail sale of product.

[Meeting rooms, exposition centers, educational facilities, and construction or improvements to buildings serving primarily as residences are not eligible cost-share items.]

- b. Site preparation, including on-site utility extensions and officially permitted on-site waste treatment facilities
- c. Refrigerated and non-refrigerated equipment for storing product
- d. Display equipment, including refrigerated equipment, to assist in selling of product

2. Rabbit Production

Cost Share Items:

1. Commercial bred New Zealand White or Californian breeding stock.
2. Cages or wire to make cages. Minimum size allowed 30" X 30" X 18". Wire must be 14-gauge or better.
3. Automatic (nipple) water delivery system, including line, regulators, medicator, and pumps
4. Feeders, nest boxes
5. Materials to construct manure handling system
6. Ventilation equipment such as fans, curtains, heaters, air conditioners
7. Equipment essential to provide on-farm value-added processing
8. Transport cages
9. Computer hardware and software to assist in performance record keeping and financial management
10. One-half the cost of participation in the Kentucky Farm Business Management Program
11. One-half the cost of membership in a producer-owned marketing cooperative.
12. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs.
13. On-farm direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structures or conversion of existing structures to be used for retail sale of product.

[Meeting rooms, exposition centers, educational facilities, and construction or improvements to buildings serving primarily as residences are not eligible cost-share items.]

- b. Site preparation, including on-site utility extensions and officially permitted on-site waste treatment facilities
- c. Refrigerated and non-refrigerated equipment for storing product
- d. Display equipment, including refrigerated equipment, to assist in selling of product

F. Poultry Production: Pastured Poultry & Other Fowl

Cost Share Items:

1. Commercial breeding stock
2. Feeders, waterers, brooders, poultry coops, nesting boxes
3. Poultry netting and other temporary fencing
4. Grazing cages (field pens), rolling hen houses, skid mounted chicken houses
5. Permanent pens and shelters
6. Fruit trees for poultry feed source
7. Egg processing and packaging equipment, including coolers and refrigerators
8. Pasture / pen water lines or alternative water sources
9. Other equipment essential to provide on-farm value-added processing
10. Refrigerated and non-refrigerated equipment (excluding motorized vehicles) for transporting product
11. Computer hardware and software to assist in performance record keeping and financial management
12. One-half the cost of participation in the Kentucky Farm Business Management Program
13. One-half the cost of membership in a producer-owned marketing cooperative
14. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs.
15. On-farm direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structures or conversion of existing structures to be used for retail sale of product.

[Meeting rooms, exposition centers, educational facilities, and construction or improvements to buildings serving primarily as residences are not eligible cost-share items.]
 - b. Site preparation, including on-site utility extensions and officially permitted on-site waste treatment facilities
 - c. Refrigerated and non-refrigerated equipment for storing product
 - d. Display equipment, including refrigerated equipment, to assist in selling of product

G. Commercial Aquaculture Production

Prerequisites:

- Pond must be a minimum of one-half surface acre in size.
- Ponds must conform to technical guidelines for construction of commercial aquaculture ponds.
- Note that there are different standards for shrimp production and finfish production.

Cost Share Items:

1. Eligible expenses for construction of aquaculture production pond and impoundment reservoirs:
 - a. Earth moving costs (embanking and excavating ponds; land shaping; professional labor)
 - b. Cost of providing water source (piping and conduits; drain and drain structure; professional labor)
 - c. Costs for electrical power (wiring, switches, control panels, professional labor)
2. Equipment and materials necessary for pond aeration (e.g. aerators, pumps)
3. Equipment essential to provide on-farm value-added processing
4. Refrigerated and non-refrigerated equipment (excluding motorized vehicles) for transporting product
5. Computer hardware and software to assist in performance record keeping and financial management
6. One-half the cost of participation in the Kentucky Farm Business Management Program
7. One-half the cost of membership in a producer-owned marketing cooperative
8. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs.
9. On-farm direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structures or conversion of existing structures to be used for retail sale of product.

[Meeting rooms, exposition centers, educational facilities and construction or improvements to buildings serving primarily as residences are not eligible cost share items.]
 - b. Site preparation including on-site utility extensions and officially permitted on-site waste treatment facilities
 - c. Refrigerated equipment for storing product
 - d. Display equipment, including refrigerated equipment, to assist in selling of product

H. Equine Production

Cost Share Items:

1. Materials to renovate existing tobacco barns by conversions to horse stalls
2. Fencing materials to enlarge paddock turn-out areas for owned and boarded animals
3. Water lines to existing and expansion paddock areas
4. Animal transport equipment (excluding motorized vehicles)
5. Computer hardware and software to assist in performance record keeping and financial management
6. One-half the cost of participation in the Kentucky Farm Business Management Program
7. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs

I. Direct-to-consumer Livestock Production

Cost Share Items:

1. Animal transport equipment (excluding motorized vehicles)
2. Boxes, containers, labels and packaging for transport and sales
3. Refrigerated equipment (excluding motorized vehicles) for transporting finished product
4. Equipment essential to provide on-farm value-added processing
5. Computer hardware and software to assist in performance record keeping and financial management
6. One-half the cost of participation in the Kentucky Farm Business Management Program
7. One-half the cost of membership in a producer-owned marketing cooperative
8. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs.
9. On-farm direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structures or conversion of existing structures to be used for retail sale of product.

[Meeting rooms, exposition centers, educational facilities and construction or improvements to buildings serving primarily as residences are not eligible cost share items.]

- b. Site preparation including on-site utility extensions and officially permitted on-site waste treatment facilities
- c. Refrigerated equipment for storing product
- d. Display equipment, including refrigerated equipment, to assist in selling of product

J. Agri-tourism Development

Cost Share Items:

1. Site preparation for items that ensure consumer safety: parking areas, grading, traffic flow, sidewalks, and established walkways.
2. One time cost-share on one half of the cost of liability insurance for new agri-tourism ventures
3. Equipment essential to provide on-farm valued-added processing
4. Computer hardware and software to assist in performance record keeping and financial management
5. One-half the cost of participation in the Kentucky Farm Business Management Program
6. One-half the cost of membership in a producer-owned marketing cooperative
7. Signage, promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs.
8. On-farm direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structure or conversion of existing structures to be used for retail sale of product, including restrooms

[Meeting rooms, exposition centers, educational facilities, and construction or improvements to buildings serving primarily as residences are not eligible cost-share items.]

- b. Site preparation including on-site utility extensions and officially permitted on-site waste treatment facilities
- c. Refrigerated or non-refrigerated equipment for storing product
- d. Display equipment, including refrigerated equipment, to assist in selling of product

K. Certified/Commercial Kitchen Construction or Renovation

Cost Share Items:

1. Construction materials to install the appropriate grade of washable ceiling tiles, flooring, and wall covering
2. Materials for the installation of water lines, gas lines, and drainage lines from existing lines, not including labor
3. Materials to install any necessary hand or mop sinks
4. Materials to install appropriate lighting
5. Equipment necessary to add value to fruit and vegetable crops or to produce baked items in compliance with HB 391, including, but not limited to, stoves, refrigerators/freezers, preparatory equipment, canners, stainless steel tables, storage facilities/equipment.
6. Production supplies including jars, boxes, bottles, labeling and packaging materials
7. Computer hardware and software to assist in performance record keeping and financial management
8. One-half the cost of attending a training program required by the Cabinet for Health Services under HB 391 for home processing and micro-processing of food products, **or training required to become a commercial processor.** (GAP training is eligible)
9. One-half the cost of participation in the Kentucky Farm Business Management Program
10. One-half the cost of membership in a producer-owned marketing cooperative
11. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the KY Department of Agriculture or other state programs.
12. On-farm direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structure or conversion of existing structures to be used for retail sale of product, including restrooms

[Meeting rooms, exposition centers, educational facilities, and construction or improvements to buildings serving primarily as residences are not eligible cost-share items.]
 - b. Site preparation including on-site utility extensions and officially permitted on-site waste treatment facilities
 - c. Refrigerated or non-refrigerated equipment for storing product
 - d. Display equipment, including refrigerated equipment, to assist in selling of product

L. Sod Production

Prerequisites:

- Board will not entertain requests for pallets, tractors, seed/fertilizer, trucks, chemicals, netting, forklifts, cutters, bobcats or all terrain vehicles.

Cost Share Items :

1. Seeders
2. Finishing Mowers (non-motorized)
3. Turf Tires
4. Net Layers
5. Tillers
6. Rollers
7. Trailers
8. Sprayers
9. Spray Tips
10. Irrigation Equipment
11. Nurse Tanks
12. Sweepers
13. Aerators
14. Computer hardware and software to assist in performance record keeping and financial management.
15. One half the cost of participation in the Kentucky farm Business Management Program.
16. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs.

M. Timber Production, Utilization, & Marketing

Prerequisites:

- Growers should obtain technical assistance from the Kentucky Division of Forestry for Timber Production cost share items.
- Growers are required to obtain a **Forest Stewardship or Forest Management Plan** free-of-charge from the Kentucky Division of Forestry or equivalent plan that provides technical information on cost share practices provided in this Investment Area.

1. Timber Production & Management:

Cost Share Items:

1. Seeds and seedlings for transplant
2. Weed control for tree plantings
Treatments before and for up to 3 years after planting, to control weeds including chemical and mechanical treatments and the planting of ground covers suitable for tree plantings.
3. Water and irrigation supplies and equipment
4. Layout and construction of permanent forest roads and stream crossings for long-term management, including construction of permanent best management practices on those road and stream crossings [One Pass Practice or General Forest Management]
5. Construction of fire lines and lanes [One Pass Practice or General Forest Management]
6. Timber Stand Improvement (TSI) [One Pass Practice or General Forest Management]
Practices such as thinning, release, control of invasive species, site preparation treatments for natural regeneration, and pruning for the purpose of improving timber quality and growth.
7. Fencing for forest management
for the purpose of restricting livestock from woodland area, not to include plank fencing

2. Forest Products Utilization and Marketing

- Growers should contact the Cooperative Extension Service for information on cost share items for forest products utilization and marketing including information on small-scale harvesting, milling, drying and marketing.

Cost Share Items:

1. Timber and lumber processing equipment
 - a. sawmills, portable or stationary
 - b. planers, molders and other similar processing equipment
2. Drying equipment and facilities
including equipment for dry kilns, predryers, dry sheds, air drying yards

3. Transportation and packaging equipment (excluding motorized vehicles)
4. Computer hardware and software to assist in performance record keeping and financial management
5. One-half the cost of participation in the Kentucky Farm Business Management Program
6. One-half the cost of membership in a producer-owned marketing cooperative
7. Promotional and advertising materials in an amount not to exceed \$1,000, excludes products or services provided by the Kentucky Department of Agriculture or other state programs.
8. Direct-to-consumer sales cost-share items:
 - a. Construction of new permanent structures or conversion of existing structure to be used for retail sale of product.

[Meeting rooms, exposition centers, educational facilities and construction or improvements to buildings serving primarily as residences are not eligible cost share items.]
 - b. Site preparation including on-site utility extensions and officially permitted on-site waste treatment facilities
 - c. Equipment for storing product
 - d. Display equipment to assist in selling of product

APPENDIX A:

GRAPE CULTIVAR REQUIREMENTS

At least 75% of the acreage must be planted with the following American, American-French hybrid or French-American hybrid varieties to apply for the 50/50 cost-share program. Currently, it is not recommended (except for two varieties listed below) to plant grapes of European heritage (*Vitis vinifera*, L.) in Kentucky until cultivars and/or their clones have been identified that are suitable to the state's climate and soils by the University of Kentucky.

<u>Red wine grapes cultivars</u>	<u>Winter hardiness¹</u>	<u>Maturity²</u>
Chambourcin ³	Moderate	September
Chancellor	Moderate	September
Concord	Very hardy	October
Frontenac	Very hardy	August
Foch	Very hardy	August
GR7	Hardy	September
Norton ⁴	Hardy	October
NY73	Hardy	September
St. Vincent	Very hardy	August

<u>White wine grape cultivars</u>	<u>Winter hardiness</u>	<u>Maturity</u>
Cayuga white	Hardy	August
Chardonnay ⁵	Hardy	September
Niagara	Hardy	August
La Cresecant	Very Hardy	August
NY76	Hardy	September
Seyval blanc	Moderate	September
Vidal blanc	Hardy	September
Vignoles ⁶	Hardy	October
Traminette ^{7, 8}	Hardy	September

<u>Seedless table grape cultivars</u>	<u>Winter hardiness</u>	<u>Maturity</u>
Jupiter ⁹	Moderate	August
Mars	Hardy	August
Marquis	Hardy	August
Neptune ¹⁰	Moderate	September
Reliance ¹¹	Hardy	September

(European Grape Cultivars on next page)

¹ Winter hardiness is the resiliency of grape buds to -15°F for one hour under normal cropping conditions.

² Maturity: Fruit composition values of 22.4 % total soluble solids, juice pH of 3.30 and titratable acidity of 0.7 mg/L.

³ It is recommended that Chambourcin be planted with a phylloxera resistant rootstock.

⁴ Although the Norton grapevine itself is very hardy, it needs ample heat units (>4000) GDD to ripen a full-crop.

⁵ It is recommended that Chardonnay be planted with a phylloxera resistant rootstock.

⁶ It is recommended that Vignoles be trained to training system that accommodates the upright growth habit.

⁷ It is recommended that Traminette be planted with phylloxera resistant rootstock.

⁸ It is recommended that Traminette be trained to the Geneva Double Curtain Training System.

⁹ Jupiter is susceptible to downy mildew

¹⁰ Neptune is susceptible to downy mildew

¹¹ Reliance berries are prone to pre-harvest shatter under warm growing conditions.

EUROPEAN GRAPE CULTIVARS

Due to the lack of field data and experience on performance of several European wine grapes in Kentucky, interested parties should approach planting new varieties with caution. Before establishing a vineyard, you should consider the viticultural characteristics and market demand of the varieties to be. The major challenge in growing grapes is winter injury, which is likely to occur during the life of the grapevine. The frequency of occurrence of extreme subfreezing temperatures depends on the site; best sites have less frequent (e.g. once in 8 to 10 years) winter damage than poor sites (every 2 to 3 years). In general, it is expected to observe winter injuries in dormant buds at about -8F in European varieties. Note that the nature and extent of winter injury are not entirely predictable due to the complex interaction between genotype, the site and the climate. Other considerations for variety selection include disease susceptibility, ripening season (early-, mid-, or late-season), yield potential, growth habit, and cultural requirements.

<u>White wine grape cultivars</u>	<u>Winter hardiness</u>	<u>Maturity</u>
Viognier clone #1	Tender	August
<u>Red wine grape cultivars</u>	<u>Winter hardiness</u>	<u>Maturity</u>
Cabernet franc clone #332,214	Tender	September